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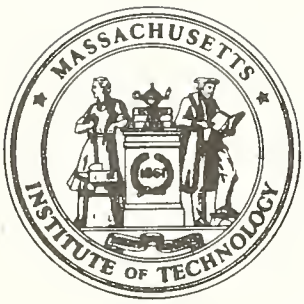

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MODES OF ECONOMIC BEHAVIOR: VARIATIONS ON THEMES OF J.R. HICKS AND HERBERT SIMON

Peter Temin

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massachusetts
institute of
technology

50 memorial drive
cambridge, mass. 02139

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Modes of Economic Behavior

Peter Temin

This paper proposes a new model of economic behavior in which people are seen as behaving in different ways--called modes--at different times and in different contexts. The existence of these distinct modes creates pressures for different institutional structures which reflect the differences between the modes. As will be seen, the proposed model is a combination or synthesis of several models used by economists and other social scientists. It attempts to bring together analyses ordinarily separated by academic discipline lines.

Three questions will be addressed. First, what are the different modes of behavior to be examined, and how can they be distinguished in the observation or analysis of actions? Second, when and how do people shift from one mode to another? And third, what is the relationship between modes of behavior and institutional structures? Then the model proposed here will be compared to existing discussions in various disciplines to show its relation to these disciplines.

The first mode may be characterized as instrumental. This is the type of behavior assumed by economists to prevail in market settings. It is represented most often by the abstraction of the homo economicus or the profit-maximizing firm, ceaselessly striving to attain a unitary goal against the constraints imposed by the

actions of other, similarly-minded individuals or firms. The essence of this behavior may be stated in two equivalent ways. When in the instrumental mode, a person or firm acts as if he were maximizing some definable objective function, whether or not he has articulated such a goal. Or, alternatively and equivalently, a person or firm in the instrumental mode acts consistently, in the sense that no sequence of his actions leads to an outcome in conflict with an outcome reached by a different chain. Consistent behavior is also often called rational, because it does not lead to internal contradictions.

Economists assume almost automatically that people engaged in market behavior act instrumentally or rationally. Other social scientists almost automatically assume that they do not. The necessity to choose between the polar alternatives has isolated economics within the social sciences, although there are isolated signs of rapprochement.* Instead of choosing, however, I propose

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* See below.

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a middle ground which asserts that people act this way part of the time. The question is not whether people act this way, but when do they act this way.

The second ideal type of behavior is customary or traditional behavior. People acting in the customary mode do today more or less what they did yesterday. I say "more or less" because if oft

appears to them that they are repeating their previous pattern when they are in fact deviating from it. This can happen because of faulty memories, because the context in which the actions take place has changed so that familiar actions no longer seem familiar, or because a variation introduced by someone else has become incorporated into the tradition. It can happen because the customs or habits are not hard and fast, not published in a code of regulations. They are implicit in people's actions, not explicit.

Customary behavior is all around us. It is the object of anthropological, sociological and psychological studies. To pick a historical example, it is the core of Marc Bloch's study of feudalism, in which he shows that customs "known" from time immemorial and sanctified by God changed radically from generation to generation. Alternatively, it is the result of what Max Weber called "the routinization of charisma."*

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* Bloch (1961), pp. 113-16; Gerth and Mills (1946), pp. 51-55.

The third ideal type of behavior is command or hierarchical behavior. Command behavior consists of either issuing or following orders to perform or to refrain from performing a specific action. There are many settings in which such behavior is seen. At one extreme are orders by a recognized authority with no threatened sanctions for disobeying. These orders may not be obeyed, but to

the extent they are, they are followed because of the general acceptance of the authority issuing the orders. The person following the order may imagine physical misfortune--as a patient does when not filling a prescription--or social ostracism--such as might follow from disregarding the instructions of an athletic coach. Neither sanction is imposed by the issuing authority. In fact, neither may be imposed at all. It is sufficient that the person receiving the order believe that some ill could come from disobeying.

At the other extreme are orders which carry explicit sanctions with them. In some contexts, these sanctions may be legal. In others, they may consist of excluding the noncomplier from the context of the order, as in firing a recalcitrant employee. In still others, the sanctions may be various forms of physical violenc

There are two striking differences between customary and comman behavior. Change comes about in the former without the consciousnes of the people involved, it appears in the latter as a result of the decisions of identifiable individuals. And while customary behavior constrains all actors more or less equally, command behavior recognizes a hierarchy in which only some people have the ability to dire behavior and make the changes in behavior just alluded to. It follo that doctors follow custom in choosing drugs and issue commands in prescribing them. The patient fills the prescription because he

fears continued or worsening illness; the pharmacist fills it correctly under penalty of law.*

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* The terms, custom and command, are taken from Hicks (1969). In contrast to Hicks, who sees history in the Whig tradition as progress toward the goal of competitive behavior, I see the three modes of behavior as coexisting or as supplanting each other from time to time.

The form of personal interaction also differs between modes. The characteristic means of communication in instrumental behavior is economic exchange, that is, explicit trades by freely-consenting equal parties. People barter or pay money for goods or services they want; they can balance the benefit to them of having these goods or services against the cost. The characteristic means of interaction in command behavior, clearly, is a command or order--or prescription. And in the customary mode, the typical means of personal interaction is reciprocity, with the affect that goes along with it. As befits the nature of this mode, reciprocity is informal and non-quantitative. Reciprocity cannot be added up like a price, nor can it be formally itemized like an order. Yet we all experience reciprocity in our daily lives, and only the most callous would deny its importance.*

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* See Schneider (1974) for a survey of the sociological and anthropological uses of this concept.

These characteristic forms of communication have entered into the legal discussion of contracts. In an important article, Ian MacNeil argued that there were two kinds of contracts which needed to be recognized--and were recognized--in two different kinds of contract law. The first kind of contract was "transactional," in MacNeil's terms. It was the means of implementing an isolated economic transaction of the sort considered in economic theory. In our terminology, MacNeil was talking of instrumental behavior. The second kind of contract was described by MacNeil as "relational." It was used in the context of ongoing relations that characterize institutions like the family, employment, and ongoing commercial interactions among known parties. These are the contexts of customary behavior, which MacNeil identified by the type of interaction used.*

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* MacNeil (1974).

The three modes of behavior have been apparent also in medicine. Eliot Freidson, a noted sociologist of medicine, distinguished three "models" of behavior in hierarchical situations where the chain of command is clear. The professional model describes behavior among communities of peers where the peer group controls--or fails to control, as Freidson discovered in his study of a medical clinic--the behavior of the group's members. And the free-market model describes the behavior of merchants and other people acting in

competitive situations. Under different names, these are simply the three modes of behavior discussed here. Freidson noted two attributes of the professional model or customary mode that are of interest here. First, there has been little analytic study of this model. And second, it allowed a wide range of behavior to persist in the medical context Freidson examined.*

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* Freidson (1975), pp. 8-11, 90-94, 240-59.

This discussion of communication can be stood on its head to suggest a way of telling which mode of behavior is being observed. It is clear that such a tool is needed. To be useful, the theory must provide tests of which behavior is being observed. It must provide a rationale, for example, for identifying the "prescribing habits" of doctors as customs.

The first test, then is to observe the means of communication between parties. Each mode has its characteristic form, and the mode of behavior in use can be inferred from the type of communicatio But this test, while unobjectionable on logical grounds, is often hard to apply. In particular, reciprocity and affect can be implicit in a relationship and hard to observe without a careful inquiry. Their qualitative nature eludes quantification, giving rise to possible conflicts of interpretation. This test needs to be supplemented with another.

Just such a second test emerges naturally from the description of the three modes of behavior. A person acting in the instrumental mode evaluates actions by their results. He compares the output of his activities against some explicit or implicit standard. A person acting in the customary mode ignores the results of his actions; he concentrates on the actions themselves, on the inputs to a set of activities. He compares the actions he performs with a set of loosely defined--if explicitly defined at all--norms. This test shows why doctors are following custom in choosing drugs, not maximizing some objective function by evaluating the effects of alternative choices. As is shown elsewhere, they could not discover many of the effects of their actions if they tried.*

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* Temin (1979).

Command behavior differs from both instrumental and customary behavior in these same dimensions. In contrast to the former, a person acting in the command mode evaluates actions by examining the actions themselves. And in contrast to the latter, he evaluates these actions by reference to an explicitly formulated set of directions emanating from an identifiable source.

With the rules just outlined, we can classify actions into one of the three modes by the way they are evaluated. It must be emphasized, however, that the classification cannot be absolute.

There is no such thing as "pure" behavior of one type or another. Instrumental behavior is modified by the bounds within which a person can maximize. Customary behavior cannot be completely blind to its results. And so on. But while all actions partake in greater or lesser degree of all three modes of behavior, the two rules just described allow us to select the dominant mode of behavior. Any analysis of behavior must start with this dominant mode and then modify the description of this central tendency as needed.

The second type of question listed at the start of this abstract discussion--describing the pattern of movement between the ideal types--is unfamiliar. Stage theories often collapse because such questions have not been answered or, sometimes, even posed. We need to show how certain constellations of people and events will precipitate transitions from one mode of behavior to another. I want to argue that it is the interaction of people and context that matters, not either in isolation. In other words, different people will be likely to use different modes of behavior in similar situations. It is logical to begin this discussion, therefore, with a description of how situations and individuals vary in the relevant dimensions.

Change is a fact of life. Any context in which people act is subject to change all the time. In addition, the characteristics of change vary from one situation to the next. The speed of change, the extent to which it can be predicted, the costs of faulty predictions, even the extent to which the change is apparent at all, vary from place to place and from time to time.

A few simple examples of change will clarify the relevant dimensions along which different types of change are to be ranked. The sun will rise tomorrow morning, and the world will become light again. That is a change--from moon to sun and from dark to light--but thoroughly understood, perfectly predictable change. It is hardly change at all; planning for it is automatic and straightforward. The sunrise therefore is an example of change that is so completely predicted that it is like no change at all.

As surely as the sun will rise tomorrow, prices on the stock market will be different tomorrow than they are today. Everyone expects prices to move, but no one knows for certain how they will shift. Myriad experts study the stock market and make predictions which are imperfect to greater or lesser degree. And stock purchase use the information generated by these experts to make investment plans and to buy and sell. The stock market therefore shows an intermediate degree of change, where the future cannot be known wit certainty, but where reasonable men may have educated opinions and where the speed of change (in general) is slow enough for people to think and plan before acting.

A third example takes us from investment to conflict. The fortunes of war can change in unexpected ways and with drastic suddenness. As with the stock market, experts can make predictions about the outcomes of battles and the balance of forces, but these anticipations are subject to wide errors, and the change may come so rapidly that there is no time for more than a few strategically-placed persons to make new projections on the basis of new informat n

before decisions must be made. Unlike the stock market, there is no time to disseminate information to a wide audience before decisions are made, and the amount of information that would be needed to allow the audience to make their own decisions or to evaluate centrally-made decisions is staggering.

Returning from the front, the final example concerns fashion. Fashions change, and we can have fair confidence that what is fashionable in the year 2000 will differ from what is fashionable now. But there is no way to go further than this. No one is in a position to anticipate the vagaries of tastes that far in the future. The expected change therefore is almost like no change, since there is no way to plan for it. Changes in fashion are as inevitable as the sunrise, but implications of this change for present actions are limited. Just as one should not plan to wear pajamas all day, one should not expect to wear today's clothes in 2000. But just as knowing that the sun will rise does not indicate what to wear in the morning, knowing that fashions will change does not generate a prediction of fashion in 2000.

Looking at these examples together suggests a few abstractions. Perfectly predictable change and white noise, that is, completely unpredictable change, are like no change. Moderate change consists of anticipated changes that can be predicted moderately well and which either do not move quickly or do not bring disaster from whatever sudden movements occur. Extensive change is rapid,

relatively unpredictable change of important variables. Large losses are possible, but planning can reduce them, at least in principle. If the possible predictions are so limited that only the most general kind of actions are indicated, then the anticipated changes are close to straight noise, and the change becomes a featur of the background rather than a stimulus to predicting, planning and taking specific actions. The measure of change increases as change becomes more rapid, more costly, and less predictable, up to a point where it is so rapid and unpredictable that it cannot be dealt with as change--only as background noise. The measure then returns discontinuously to its origin.

This is not strictly true, of course. People generally act differently in a noisy environment than in a perfectly predictable one, even if they cannot make informative predictions for the future For example, they may preserve the ability to take advantage of changes in the environment. In economic terms, they may be more liquid. Since liquidity and the modality of behavior are largely independent, I will treat this as a secondary effect--a qualificati to the model--rather than as something to be explained.*

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* This qualification need not pose a difficulty for the model. The presence of noise indicates that liquidity is desirable, but does not by itself indicate an optimum amount of liquidity. In the typical case, therefore, people will choose a liquidity position based on custom, whether the traditional response to the situation is the reaction common in their peer group at the time. Unpredictable change therefore will lead to customary behavior, albeit not the same customs as the absence of change. See below.

The discontinuity in measured change implies that there is a maximum amount of change in this measure. The measure therefore can be confined to the unit interval, where zero indicates no change or pure noise, and one indicates the maximum amount of change that is seen as change rather than noise. Within the interval, change is evaluated as larger if it is more rapid, more costly, or less predictable.

In addition to differences between situations, the model also recognizes differences among people. Each person can choose the weight that he or she gives to competing objectives, and we may use these weights to calibrate this aspect of the differences between individuals.

There is a substantial body of thought that denies the possibility of distinguishing people in any systematic way. This literature does not deny that people differ; it denies that they differ in sufficiently constant ways for their differences to be calibrated. Walter Mischel, a leading figure in this field, argued that the behavior of any single individual varies enough over situations that his or her behavior can be predicted far better by the characteristics of the situation at hand than by individual "traits." An article supporting Mischel's views succinctly summarized its limited conclusions in its title. It was called: "On Predicting Some of the People Some of the Time."*

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* Mischel (1969), pp. 73-101; Bem and Allen (1974).

Now it is true that people differ in ways that are not amenable to scaling along one or a few dimensions. But the insistence that people cannot be usefully characterized at all seems to go beyond the available evidence. The title just noted suggests the problem. Even people who act consistently will act differently in different situations. A theory that will describe behavior needs to be multi-dimensional, that is, to show the interaction of individual and situation. Within bounds, it should be able to predict everyone's behavior some of the time and even some people's behavior all of the time by accurately identifying this interaction. Only if such a theory fails, can the conclusion be drawn that people do not vary systematically.

The personality measure to be described here, therefore, does not need to carry the burden usually thrust upon such measures in personality theory. Alone, it will not predict behavior: each mode of behavior can be practiced by any person--in the appropriate situation. The choice of mode is the result of both personality and situation.

Phrased differently, personality cannot be defined in terms of behavior exhibited. Only in a very extreme case will someone behave consistently in the customary or instrumental mode. The grand majority of cases will act sometime in one mode, sometime in another. The present theory, therefore, differs in structure from the kind of analysis typified by David Riesman's <u>The Lonely Crowd</u>.

The "inner-directed" and "other-directed" personality types described in that book were described in terms of their actions, with the former acting instrumentally while the latter acted customarily.* Riesman confused personality and action, the inputs

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* Riesman (1950).

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and outputs of the model being presented here. His discussion therefore increases our understanding of these two modes of behavior. It cannot inform us about the way in which people with different personalities and attitudes select (not necessarily consciously) among the possible modes of behavior.

The dimension of personality of interest here can be called autonomy. The opposite of autonomous in the present context is social, and people are considered to be located in a scale that ranges from complete autonomy to complete social involvement (or zero autonomy).

Autonomous people are concerned with their individual position and with their possessions and other symbols of achievement. They are relatively unconnected emotionally with other people or with a group. They seek to get ahead, to change, to advance. They do not look with any longing at a stable place within an established group. At the extreme, they are ambitious, critical, and selfish. If they are not "self-made men," they aspire to that position.

Social people, by contrast, exhibit opposite attitudes. They are concerned with their interpersonal relationships and desire above all to be located within a stable social framework. They are responsive to the needs of the group and even willing to sacrifice their own advancement for the progress of the group. They are the "good soldiers" of society.

The concept of autonomy is not new here, and these brief comments are not meant to add to existing descriptions. Instead, they are the initial steps in finding or devising a measure of autonomy. For if the present model is to have any empirical content there must be an explicit measure of autonomy to join with the explicit measure of change introduced above. No existing personality scale lies precisely along this dimension, but the Machiavelli scale developed by Christie and Geis appears to measure personality and attitudes along a similar dimension. Accordingly, the degree of individual separation from the social contest will be identified for the present with that individual's ranking on the Machiavelli scale.*

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* Christie and Geis (1970).

Christie and Geis were interested in political power in a restricted context. They hypothesized that people who agreed with Machiavelli's political directives would act differently than those who did not and set out to test this hypothesis. They evaluated

individual acceptance of Machiavellian prescriptions by means of a tabulated questionnaire, characterizing people who agreed with Machiavelli (as transcribed by Christie and Geis) as "high Machs." Individual Mach scores were not correlated with intelligence.

They characterized high and low Mach as follows:

> High Machs: the Cool Syndrome
> resistence to social influence, orientation to cognitions, initiating and controlling structure.
>
> Low Machs: the Soft Touch
> susceptibility to social influence, orientation to persons, accepting and following structure.*

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* Christie and Geis (1970), p. 285.

While Machiavelli's writings are not overtly related to the drug industry, this scale nevertheless provides information useful here. We need a personality measure that allows individuals, and groups of individuals, to be ranked along a single scale. Christie and Geis' measure provides such a ranking. They were interested in Machiavelli, but we can regard the questionnaire they developed from his writings as an abstract ranking of individuals along a social-individualistic scale.

These two dimensions can be put together as shown in Figure 1. Individual differences are ranked along the vertical axis, with high Machs being at the top. Differences between situations are ranked along the horizontal axis, with the speed of anticipated but unpredictable change increasing to the right. The vertical axis is labelled "Individual autonomy"; the horizontal, "Contextual change." Any point in the box represents the combination of a perso or group and a situation with the appropriate characteristics. By using a box, I assume that there are maxima and minima in both dimen sions. The measure of change was defined for the unit interval abov Christie and Geis' finite measure can be easily rescaled into the unit interval as well.

Each side of this square can be identified with a particular mode of behavior. Since there are four sides and only three modes, two sides will be identified with the same mode. If these two sides are contiguous, we can define three areas of unimodal behavior, starting with the edges of the box and going toward the middle. They will be separated by lines that start from the corners of the box and meet at some point, T, in the interior where the three areas touch. Without more specification, it is impossible to say where in the interior of the square this point is. For symmetry and simplicity I have represented it as the center of the square. Drawing lines from this point to the corners of the square therefore divides the square into equal quadrants as shown in Figure 1. Each quadrant will be characterized by one mode of behavior, and two of them will be characterized by the same mode.

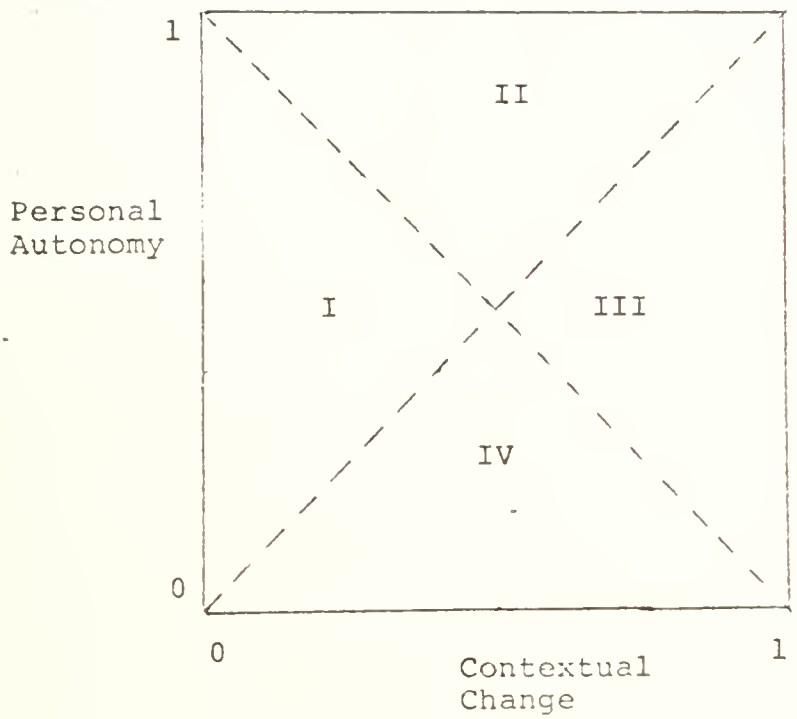

FIGURE 1

This procedure is based on a continuity assumption. It assumes that there is only one connected area for each mode of behavior, so that an identification of the edges of the box with a mode of behavior implies a similar identification with the area near the edge. It also implies that the boundaries between areas have roughly the shape shown in Figure 1, although there is no reason for them to be straight or to have the equal slopes shown in the figure. (More precisely, I assume that each boundary is monotonically increasing or decreasing.) The continuity assumption can be tested in a preliminary way by examining a few boundary points for their plausibility after the modes of behavior have been filled in.

The left-hand edge shows conditions of no change or complete noise. These are the conditions under which customary behavior is used; there is no scope for either instrumental or command behavior Quadrant I consequently can be identified as a region of customary behavior.

The location of customary behavior at the left-hand side of the box raises the question of the relation between custom and habit These two terms were used interchangeably above, but they convey slightly different meanings. Custom refers to activities done in a group context, while habits refer to individual activities. The difference is not in the stability of the actions. Customs can be very rigid and durable, as they are in certain "traditional" communities. Nor is it in the action's origins. Some habits are

the customs of a previous peer group. It seems rather to be in the degree to which the rules that govern custom or habit are internalized. Habitual activity responds to a set of internal guidelines; customary activity, to a set of external--group--guidelines.

Despite the difference between these two terms, it does not seem advisable to distinguish them as separate modes of behavior. They overlap in common use, so that doctors' prescribing patterns, which respond to group influence and pressure, are spoken of in the literature as "prescribing habits." And this overlap reflects the inherent difficulty of demarcating where habit ends and custom begins. Rather than distinguishing them, it is preferable to include habit in the customary mode of behavior, recognizing that people near the top of the box (along the left-hand edge) will be acting more out of habit, while people near the bottom act more out of custom.*

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* The distinction between custom and habit does not correspond to Riesman's distinction between tradition-directed and outer-directed behavior. Both of those types of behavior are customary. The difference between them is in the extent to which the customs change over time. Riesman (1950), Chapter 1.

The top of the square shows the behavior of completely autonomous people. Unencumbered by social ties, these people act instrumentally in all conditions. Of course, such people only exist in economic theory. The more accurate statement is that more autonomous people will use instrumental behavior in a wider array of contexts than less autonomous people. Quadrant II therefore is the region of instrumental behavior.

The right-hand edge describes behavior at the maximum amount of change that can be understood as change, just before the movement dissolves into chaos and noise. It is not unreasonable to assume that everyone in this position would see some form of hierarchical decision-making as desirable. There may well be disagreements about who should be in control and how much authority he or she should have, but the disagreements will be about the nature of hierarchy, not its existence. Quadrant III is the domain of command behavior.

Finally, the bottom of the box shows the activities of complete socialized beings. They are imbedded in a group, and they follow the customs of that group. There is no assurance from the combinati of personality and situation that such a group will exist. The argu ment is that if a suitable group does not exist, the social people will invent one. Quadrant IV, like Quadrant I, is a region of customary behavior.

Identifying the quadrants with the mode of behavior indicated in each and eliminating the redundant boundary between Quadrants I and IV yields Figure 2. Point T, the sole boundary point between all three modes of behavior, is shown at the middle of the square, but this is purely for convenience. As noted above, we know only that T is in the interior of the square. Consequently, the apparent inference from Figure 2 that customary behavior will be found more often than either instrumental or command behavior is illegitimate. This may be true, but it cannot be inferred from the diagram. Since

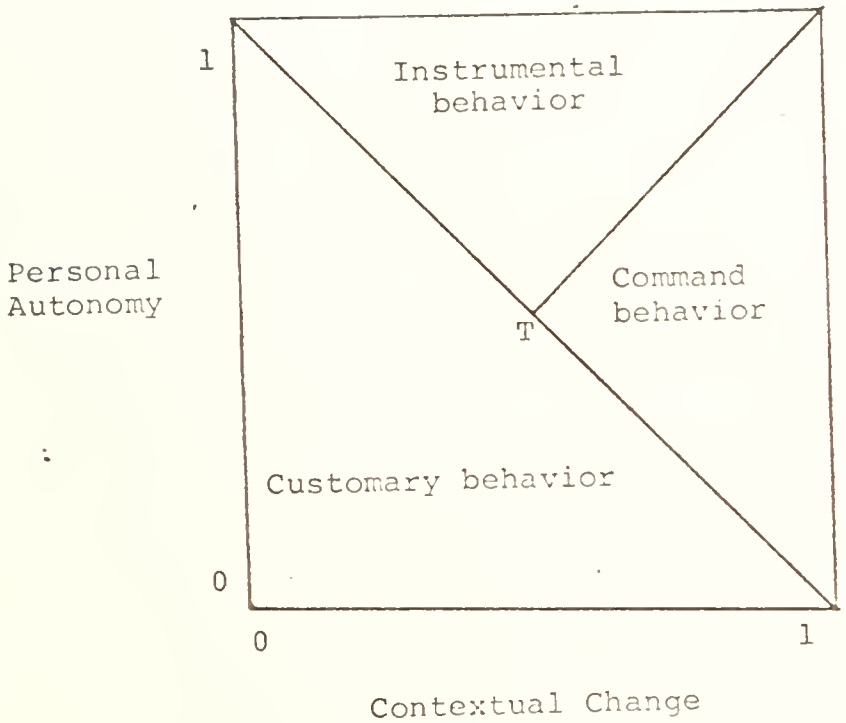
1
Instrumental
behavior
Personal
Autonomy
Command
behavior
T
Customary behavior
0
0
1
Contextual Change

FIGURE 2

distance within Figure 2 is not well defined, the only information it contains is that point T is in the interior of the box and that it is connected to three of the four corners. We can speak of points above or below, to the right or left, of point T, but we cannot describe the distance between point T and other points in the box.

The way in which a mode of behavior is selected varies. It may be the result of explicit choice--of instrumental behavior applied to the choice of mode. This is one extreme. At the other extreme, people may use one or another mode of behavior in a given context because they are unable to conceptualize any other. As far as they are concerned, there is no choice to be made. Changing modes for these people would involve learning about another mode. Between these two extremes lie various combinations of explicit choice and cognitive determinism. The balance between these poles may differ among people and even among situations for the same person.

As noted above, a rough test of the assumptions underlying Figure 2 consists of assessing the plausibility of the figure's implications. Let us examine the behavior predicted along a horizontal line above T and a vertical line to the right of T, each of which passes through all three zones, as shown in Figure 3. The figure describes equilibrium behavior, that is, behavior that can be sustained under different conditions, so it is more appropriate to compare different people placed along each line than to trace the movement of a single person who moves along the lines. Three points are distinguished on each of them, one in each region.

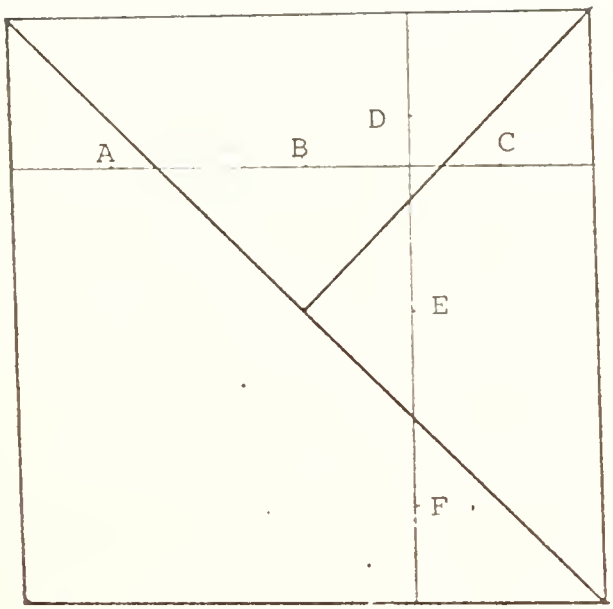

FIGURE 3

The horizontal line, ABC, shows the behavior of relatively autonomous people under different circumstances. For a range of conditions, typified by point B, the autonomous person behaves instrumentally. But even a quite autonomous person cannot maintain this mode of behavior under all circumstances. Such a person, finding him- or herself at point A, where there is little variance in the relevant environment, would find his or her behavior slipping into the customary mode. Ordinary decisions, often repeated, are the stuff of habit or custom, not of repeated calculation. At the opposite extreme, autonomous people at point C, in conditions of rapid change, will acknowledge the inability of single individuals to cope with the changes. They will opt for some kind of delegation of power, differing among themselves over whether to be governor or governed.

The vertical line, DEF, shows the behavior of different people in the same situation, in this case one of extensive change. The most social people, at F, follow their customs in the face of change either ignoring the change or choosing to preserve the group instead of adapting quickly to the change. More autonomous people, at E, prefer a hierarchical system for dealing with the change, opting for the increased flexibility rather than the maintenance of a peer grou The most autonomous individuals, at D, choose to "go it alone." The extent of change is not great enough to cause them to abandon their individual efforts to benefit from the changes they see.

This small exercise shows that a plausible interpretation can be given to movements from one region of the box to another, even when there is more than one transition to explain along a single line. This is not a strong test of the theory, but it lends support to the use of a continuity assumption to fill in the interior of the square.

Several propositions emerge from this model, even in its present crude state. Here are a few of them which will serve to illuminate the model and show its usefulness.

1. Transitions between modes of behavior can be caused either by changes in the context--including changes in knowledge about an existing situation--or by changes in taste. For example, an existing pattern of customary behavior might be changed into instrumental behavior by a rise in the rate of perceived contextual change. In terms of Figure 2, people and groups can move either horizontally or vertically.

2. A return to customary (or coercive) behavior after a period in another mode does not mean a return to the same customs (or commands) as before. Indeed, we would expect customs and commands to be different after they had been interrupted by another type of behavior.

Consider a person or group acting in a customary fashion. If the environment changes in an unexpected, but perceptible manner, this person or group may become dissatisfied with the existing customs and replace them by instrumental or coercive behavior. This new behavior will permit adaptation to the new conditions; that is their attraction. But if the changes in the external environment slow and cease after a while, the possibility of rapid change may become less important, and behavior may drift back into the customary mode. Even though this change represents a return to a familiar mode of behavior, the patterns of actions that get transformed into customs will not be the old customs. The temporary use of instrumental or command behavior will have shattered the old customs and replaced them by new actions designed to meet the new conditions. And these new actions will become the new customs.

A return to the customary mode therefore does not mean a return to pre-existing customs. A firm that institutes cost-cutting practices in response to a rise in its costs may lose its crusading zeal after a while, but will not simply return to its old, wasteful ways. The innovations of the cost-cutting campaign typically will be embodied in new rules of thumb instead. A doctor who searches the drug literature in response to some shock may tire of his inquiry in short order, but he will not in general forget or fail to use what he has learned.

3a. Customary behavior cannot be sustained under conditions of great change or in populations with high autonomy. Custom and tradition cannot coexist with rapid change and the expectation of continued change in the future.

3b. Command behavior cannot be sustained under constant conditions or those of easy predictability. There is no justification for the hierarchical control, and it will tend to erode one way or the other, that is, into instrumental or customary behavior.

3c. Instrumental behavior cannot be sustained in populations that have relatively little autonomy or in conditions of too much or too little change. Doctors, we may imagine, begin their careers aspiring to make instrumental choices among drugs and then lapse into customary behavior as they become integrated into a medical community. Individuals, for whom the changes are less anticipated, opt for command rather than customary behavior.

4. It follows from proposition 3c that perfectly efficient points, that is, Pareto optima, may be unattainable. They may require a degree of autonomy that the population lacks. And they may require a speed of change that is incompatible with the maintenance of instrumental behavior. Command and customary behaviors, or course, lack the optimizing properties of instrumental behavior, even under the restrictive assumptions in which competition leads to efficiency.

Going further, attempts to reach perfectly efficient points may be self-defeating. If the attempts require an increase in the rapidity of change and the unpredictability of a situation, then the results of optimizing efforts may be to introduce command behavior, rather than instrumental. Efforts to "shake up" an existing customary pattern may result in so much expected variation that instrumental behavior as well as customary behavior is avoided. This could happen if the population is socially oriented, as in the movement from A to B in Figure 4, but it could also happen with a more autonomous population if the increase in change was enough, as shown by the movement from C to D in Figure 4. And while the comman behavior might result in efficiency, there is no reason why it has to. It may instead lead to an expansion of bureaucracies that moves the group away from the efficient point. If point E in Figure 4 showed the original position, an increase in the rate of change in the pursuit of efficiency could lead to a movement to F with an increase in bureaucratization and a probable decrease in efficiency.

5. Providing additional information to consumers will only be useful in certain contexts. Only with instrumental mode will new information necessarily affect decision-making, and the instrumental mode is only maintainable under certain conditions. Under other conditions, the information will be ignored much of the time as people fall back on customary and command modes of behavior. The 1906 Pure Food and Drug Law and its subsequent extensions, may have simply provided information without moving people out of a customary mode. While the information may still have been useful, it would not have come close to fulfilling the

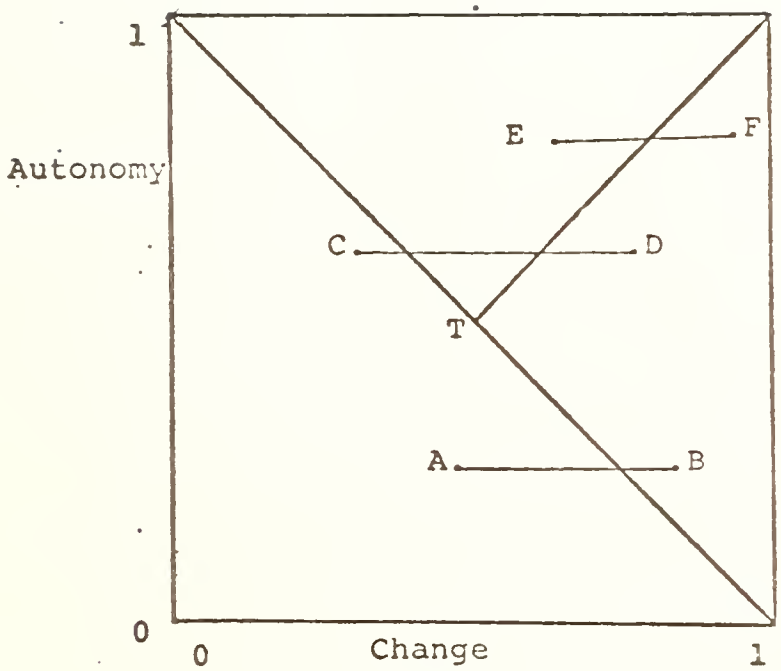

FIGURE 4

role assigned to it if this was the case. The extensive drug inserts mandated under the 1962 Drug Amendments may have been limited in their impact for similar reasons. And the package inserts for patients being considered now may also be of only limited use.

6. Finally, groups and nations may differ in their approach to similar problems. Doctors may be spread out along a line like AB in Figure 5, which extends across a modal boundary. While most doctors act customarily, some doctors would act instrumentally in this case. The instrumental minority then would serve as a conduit through which new information could affect the customs of the majority, as discussed in Chapter 7. Nations may be spread out alo a line like CD as they contemplate policies to control the sale of medicine. Depending on where they are on the line, they could opt for any of the three modes of behavior in response to the same degr of uncertainty. The two-dimensional nature of the model allows for the common observation that responses to similar conditions differ among individuals, groups and nations.*

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* See Burrell (1976) or Wardell (1978) for a survey of national differences in the approaches to drug policy.

If some of these propositions sound familiar, it is no wonder. The model attempts to summarize a body of existing thought as much as to break new conceptual ground. But while these thoughts are

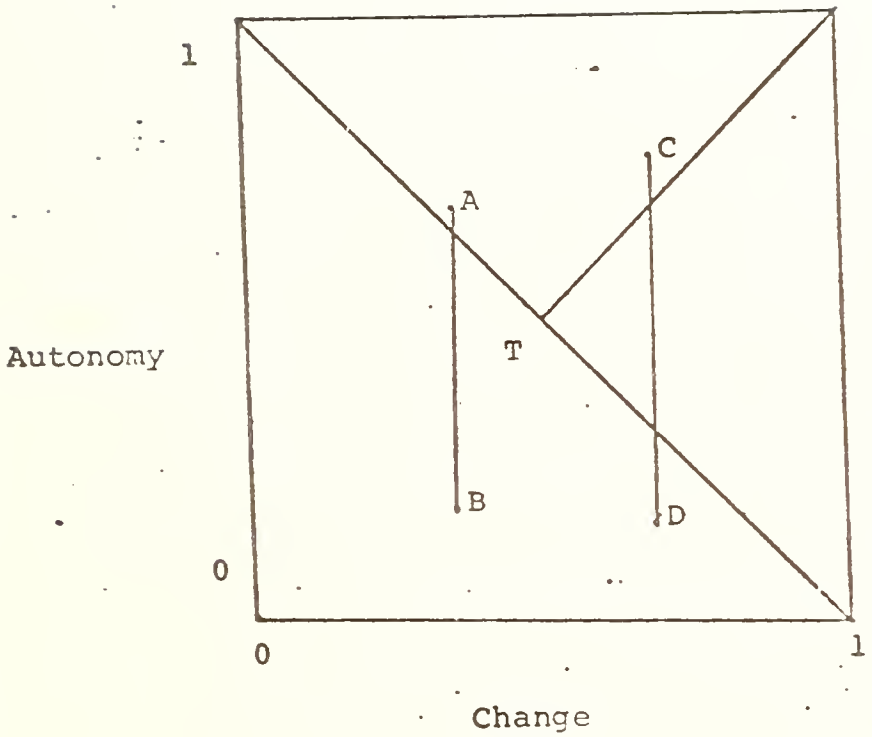

FIGURE 5

in the literature, they have not been brought together in a systematic way. They remain, therefore, on the fringes of knowledge often mentioned, but never developed. One aim of the current inquir is to bring them onto center stage.

Placing these propositions in the spotlight exposes a limitation in their coverage that needs to be addressed. The propositions all concern behavior. They do not deal with the institutional structure within which these modes of behavior are carried out. We need, first, to classify institutional structures compatibly with our classification of behavior, and second, to hypothesize a relationship between modes of behavior and institutional structure. Doing so will answer the third question posed at the start of this discussion.

Paralleling the three modes of behavior, we recognize three distinct institutional structures. A hierarchy exists when people are arranged in well-defined status of power relationships, so that one person or one group of persons is in a position to give orders to other people with a reasonable expectation that the orders will be carried out. A market exists when people come together on an equal basis and exchange resources (money, services, commodities) in mutually agreed-upon, explicit bargains. The equal basis does not refer to equality of resources between the participants, but to the necessity to gain mutual agreement for the exchange to take place. A community exists when people interact informally on a more or less equal footing and on a sustained basis. Communities are distinguished from hierarchies

by the absence of a well-defined set of status or power relationships and from markets by the absence of explicit exchanges. Communities depend for their operation on the presence of continuing affective relationships, which may or may not be present in hierarchies and markets. The presence of these relationships is a poor index of the existence of a community, however, both because they sometimes exist in other structures and because they often are hard to observe from outside the community. They are very important in the functioning of any community, but they are not a defining or distinguishing characteristic of community structures.

The structures can be combined with the modes of behavior as shown in Figure 6. We can imagine each mode of behavior existing in each structure, but it is clear on the face of it that not all modes of behavior fit easily into all structures. It is necessary to specify which cells in Figure 6 are "stable," that is, in which cells there is a comfortable fit between behavior and structure, and how the uncomfortable fits in other cells are expressed in actions. These specifications can be made in a series of propositions, which can follow the propositions on behavior already listed.

7. The diagonal cells in Figure 6 are stable. That is, once a mode of behavior is imbedded in the structure corresponding to it, there is no pressure for change. Customary behavior fits comfortably into communities. That structure allows affective relationships and reciprocal actions to reinforce each other and customary behavior as well. Instrumental behavior functions well in market settings. And command behavior is appropriate in hierarchies.

Behavior \ Structure	Community	Market	Hierarchy
Customary			
Instrumental			
Command			

FIGURE 6

8. One off-diagonal cell is stable as well. Customary behavior can exist in hierarchies without tension. People may obey the commands of traditional authority figures in conformity with the community of followers' traditions, not out of any desire to have decisions centrally made. It follows that the presence of conditions that promote customary behavior--no unanticipated, important changes in the environment--need not threaten the existence of some hierarchies. Those hierarchies based on the continued exercise of power may be subject to stress in the absence of events calling for the use of that power, but hierarchies maintained by a continuing tradition of authority may not feel stress under those circumstances. Phrased differently, it may be hard to distinguish between customary and command behavior and between community and hierarchy structures in some traditional settings.

9. The tensions present in other cells of Figure 6 come out in pressures to change the institutional structure, not in pressures to change the mode of behavior. According to propositions 1 through 3, modes of behavior are determined by the extent of unanticipated change in the environment and the degree of autonomy of the person or persons involved. This proposition says that the existence of a particular mode of behavior then creates pressure for the structure of personal interactions to conform with that mode.

In other words, the logical structure of the model is as follows. The interaction of personal characteristics and unanticipated changes in the environment create forces pushing the pattern of behavior toward a particular mode. Then the existence of this mode of behavior creates forces that push the institutional structure toward a structure that is compatible with that mode. To a first approximation, then, the institutional structure within which behavior takes place does not influence the mode of behavior used.

Looking more closely, at least two avenues by which the institutional structure might affect the mode of behavior can be discerned. First, the structure may affect the extent of unanticipated change in the environment, which will in turn affect the mode of behavior. Use of a market may increase the rapidity of change, for example, while some community structures may reduce it. Second, the existence of a given institutional structure may create incentives for people to act in a mode that fits well with it. In market settings, there are more incentives to act instrumentally than in rigid hierarchies. But these forces are less strong than those that go in the opposite direction from modes of behavior to the institutional structure. While they should not be ignored, they will seldom be dominant.

In terms of Figure 6, this proposition asserts that the forces that operate when groups find themselves off the diagonal move horizontally, not vertically. The proposition is summarized in Figure 7, where shaded areas represent stable cells and arrows show the direction in which groups in other cells may be expected to move.

10. The existence of the forces to change the institutional structure does not mean that groups cannot remain in any of the cells of Figures 6 and 7 for a long time. Altering institutional structures is a difficult job. It requires time and resources, and it will not be undertaken lightly. The forces making for change may not be strong enough in some cases to induce people to commit the time and energy needed to change the institutional structure within which they act.

Changing the institutional structure is analogous to making an investment in a new factory or signing a long-term contract. The process of building a factory or negotiating a contract is itself costly and will not be undertaken for trivial or transient gains. After the factory is built or the contract signed, the builder or signer is in a different position than before. This new position has its advantages, of course, but it also has drawbacks. The person involved presumably sees advantages to having a factory or a contract; why would he or she have built or signed otherwise? But having one or the other also restricts this person's options for the near future. If he or she decides not to operate the factory, then the factory must be sold or abandoned at a loss. If he or she decides not to fulfill the contract, damages must be paid. In each case, the presumed benefits are obtained at the cost of losing some options.

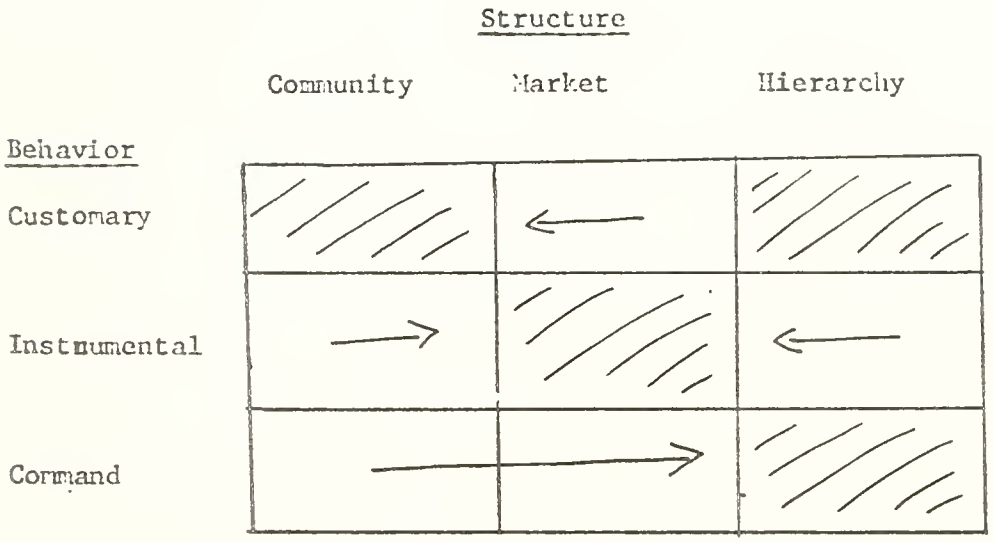
Structure
Community
Market
Hierarchy
Behavior
Customary
Instrumental
Command

FIGURE 7

Similarly, changing an institutional structure may offer the benefit of relieving disharmony between the institutional structure within which behavior is carried out and the mode of behavior used. But this change requires effort and, once effected, imposes new costs on the people involved. Only if the disharmony is acute or the transition easy will the forces shown in Figure 7 work themselves out quickly.

The model therefore describes long-run tendencies. In the long run, the extent of unanticipated change and personal autonomy should determine the mode of behavior which then in turn should determine the institutional structure of personal interactions. In the short run, however, myriad forces may impede the progress toward a long-run equilibrium. And if the conditions in the underlying environment change or if the nature of the population alters, then the tendency to move to the diagonal cells in Figure 7 may never be realized. The direction of the forces may change before the forces become manifest in action.

In the short run, therefore, we may observe groups anywhere in Figure 7. If groups are observed in one of the unshaded cells, we expect to find evidence of the forces for change shown in the figure. And we expect further to find that the actual movement we observe goes more often than not in the direction of the arrows.

These propositions, like the first half-dozen, summarize and codify ideas scattered through the literature. Their novelty is in their systematic presentation of these ideas and their formulation into a model. For, as noted above, these ideas have been often stated, but seldom developed.

One reason for the lack of intellectual development in this area is that the model includes behavior studied by a variety of different academic disciplines. Economists study instrumental behavior. Lawyers and political scientists study coercive behavior And customary behavior is studied by sociologists and social psychologists. Each of these disciplines has accumulated a body of knowledge about the mode of behavior and the institutional structure dominant in its chosen domain by specializing both its mode of inquiry and its subject matter. But as a result of this specialization, the boundaries and transition points between the different modes of behavior and different institutional structures have been neglected. Within each separate discipline, material about the boundaries of the discipline are "interesting" but not "professional."

A brief survey of writings on different modes of behavior therefore will reveal two things. First, it will give a few examples of how the ordinary disciplinary activities of the different fields fit into the model just presented. And second, it will identify places where the academic boundaries already have been breached and the transitions between different modes of behavior have been recognized. Examples of the latter will be drawn primarily fron economics, both because I am an economist by training and because specialization has gone further in economics than in other social-science disciplines, making holes in its protective walls more apparent.

The first example of work at the boundary of economics concerns the theory of consumption. Stimulated by Keynes' ideas on the determinants of consumption, economists collected data on the relation between consumption and income at different times. The data exposed an apparent contradiction. If one compared different people at any one time, the proportion of income consumed fell as income rose. But if one compared the national ratio of consumption to income over time, it had not fallen as national income, and therefore the incomes of individuals within the national aggregate, had risen. The first result indicated that consumption rose less rapidly than income; the second, that they rose at the same rate.

The contradiction arose out of Keynes' theory, which predicted that consumption was a simple function of income and which did not recognize any differences between comparisons between people at a given time and between national aggregates at different times. The way out of the contradiction therefore was to revise the theory. James Duesenberry suggested in the late 1940s that the theory be revised by abandoning the assumption of independent preferences. In the terms used here, he denied that people were completely autonomous and introduced social elements into his theory. In his words:

> [T]here are strong psychological and sociological reasons for supposing that preferences are in fact interdependent.... [F]or any given relative income distribution, the percentage of income saved by a family will tend to be a unique, invariant, and increasing function of its percentile position in the income distribution. The percentage saved will be independent of the absolute level of income. It follows that the aggregate savings ratio will be independent of the absolute level of income.*

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*Duesenberry (1949), p. 3.

Appealing across disciplinary lines, Duesenberry asserted that the two bodies of data were the products of two entirely different processes. The comparison of different people at a single point in time showed what happened to the ratio of consumption to income as position within the income distribution, and therefore the social structure as well, varied. The comparison of national aggregates at different times showed the effects of shifting the whole distribution without changing the distribution itself. Variations in the ratio of consumption to income are the result of moving within the social structure, of changing relative position. They are to be expected when looking within the national aggregate, but not when looking at the aggregate itself.

Economists did not flock to the interdisciplinary standard raised by Duesenberry. Instead, they continued to seek an explanation for the apparent contradiction consistent with the assumption of completely autonomous behavior. Such an explanation was found in the 1950s. It has two variants, referred to as the "life-cycle" or "permanent-income" hypothesis.*

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*Modigliani and Brumberg (1954); M. Friedman (1957).

Differing in details, the two variants make the same assumption that people make consumption plans for a long period--for their whole lifes according to the life-cycle variant. Their consumption at any moment is determined by the plan, not by their current income.

Current incomes vary, and people experiencing high income for the moment will show low ratios of consumption to income, while people with temporarily low income will show a high ratio. At any moment of time, a disproportionate number of people with high incomes will be above their average or planned income, while a disproportionately large proportion of people with low incomes will be below this level (which is different for each person). Comparing different groups within the population, therefore, shows that people with higher incomes consume less of their income than people with lower incomes, as expected. But comparing national aggregates at different times does not show a similar result because the proportion of people experiencing temporarily high income is balanced by the proportion receiving temporarily low income. As in Duesenberry's theory, the apparent contradiction vanishes.

Once the contradiction was eliminated, it ceased to be more than a historiographic curiosity. The new theories found their place in the explanation of the short-period stability of consumption when income fell during recessions. And here both types of theories gave pretty much the same explanation. They both appealed to the durability of consumption plans and the time needed to change them. Duesenberry emphasized the difficulty of reducing consumption expenditures, in part due to the implied loss in social standing, which he compared with the ease of raising them and advancing in the social structure. The later theorists simply noted that the proportion of people with income below their long-run expectations is larger in recessions than

the proportion of people earning more than this level. It follows that the proportion of people with relatively high consumption-income ratios is higher than the proportion with relatively low ratios, and the aggregate ratio is high. The ratio of consumption to income therefore rises during recessions. Equivalently, the level of consumption falls less than the level of income.

This brief discussion shows that--at least to a first approximation--the two types of theories explain the same previously puzzling phenomena. Yet the life-cycle and permanent-income theories have been incorporated into the mainstream of economic analysis, while the relative-income hypothesis of Duesenberry has been left to languish as a historiographical curiosity, similar to the one it was formulated to explain.*

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*An influential review of new theories of the consumption function in the late 1950s did not even mention Duesenberry. Similarly, a closely-reasoned attack on the progressive income tax in the same decade did not take note of Duesenberry's demonstration that his behavioral assumptions implied a strong argument in favor of the progressive income tax. Farrell (1959); Blum and Kalven (1953

The reasons are clear. The later theories resolved the empirical puzzle within the confines of traditional economic theory. They explained the apparent contradiction without abandoning the assumption of continuous instrumental behavior. They therefore preserved the integrity of economic theory. It is like a geometry class, where the problem is to subdivide an angle without using a protractor. To perform the required task with the aid of a protractor--sociological theory in Duesenberry's case--earns disapproval or worse, not the high marks attainable by efforts with traditional tools.

The life-cycle and permanent-income theories have been refined and extended in the years since their original publication, while the relative-income theory has not. It exists on the fringes of economics where it recently has received renewed attention. Several authors have expressed a growing disenchantment with the goal of continuous economic growth in terms of the relative-income hypothesis. The argument, with variations, goes like this: Any individual wants to increase his income in order to make progress within the social structure. But when everyone increases his income, no one has risen relative to others, and everyone's aspirations to rise in a stable social hierarchy are frustrated. Even though everyone desires economic growth, everyone is disappointed by the result. The parallel with Duesenberry's explanation of the anomolous consumption behavior is obvious, as is the reliance of this view on Duesenberry's resolution of the consumption puzzle, not the more orthodox theories.*

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*The most complete statement of this view is in Hirsch (1976). See also Easterlin (1973).

This reference to economic growth reemphasizes the policy implications to the choice of behavioral model. The relative-income theory, by admitting the existence of social attitudes and aspirations, allows consideration of factors excluded from orthodox economics. Any model that explicitly recognizes different attitudes and diverse modes of behavior therefore may be expected to lead to policy conclusions different from the traditional economic ones.

Another illuminating example of work at the boundary of economics concerns uncertainty. The theory of pure competition assumes that information is costless and that all consumers and producers know all information relevant to the decisions they make. This clearly is false, and two models to deal with the costs of information were put forward around 1960. One stayed within the conventional boundaries of economics and has been incorporated into the mainstream of the discipline. The other breached the intellectual walls and has been neglected by economists as a result.

As with consumption, the earlier theory was the heterodox one. Herbert Simon proposed, in the terms introduced here, that the assumption of continuous instrumental behavior be replaced by assumed customary behavior. In his terms, maximizing behavior was replaced by "satisficing" behavior. This new term described behavior that did not ceaselessly strive for efficiency, but rather followed tradition or habit if the results--measured in some crude way--were not too bad. When the result of this customary behavior diverged too far from the goals of the person or organization acting, search behavior was instituted to find a better way of operating. As described by Simon, searching is an example of instrumental behavior, and the transition from satisficing to searching in his model is precisely the change from customary to instrumental behavior in the model presented here. Going further, Simon noted that if the divergence between experience and goals was to great, "emotional" behavior might

result. Simon clearly had in mind a third mode of action, although the parallel between "emotional" and coercive behavior may be strained. Nevertheless, Simon clearly articulated a theory based on discrete modes of behavior in which people did not maintain instrumental behavior continuously over their careers.*

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* Simon (1957, 1959).

The motivation for this theory was Simon's contention that it was too costly for people or for organizations to process continuously the information needed for even moderately complex decisions. To avoid these costs, people switched from instrumental to customary, satisficing, behavior. In contrast to Duesenberry's argument, the social aspects of personality play no role. Instead, the noise in the environment and the lack of simple connections between actions and results promote the use of customary behavior. In terms of Figure 2, economic theory locates people in the instrumental area. Duesenberry located people below that area, while Simon put them to the left of it. Although quite different, the two theories can be seen as diverse expressions of the same underlying model.

George Stigler, writing shortly after Simon, looked at the other side of the information problem. Retaining the assumption of continuous instrumental behavior, Stigler asked how much costly information would a firm supply or a person acquire. The answer was that the firm would provide information up to the point where the expected gain of issuing the last scrap of information

equalled the cost of issuing it, and that the person would accumulate information up to the point where the value of the last unit of information gathered equalled the cost of obtaining it. In economic language, they would issue and gather information until the marginal value of the information equalled its marginal cost.* On this

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* Stigler (1961).

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foundation, Stigler and later writers constructed a theory of economic search, investigating the costs and gains from different stopping rules, the responses to different costs of information, the price structure compatible with costly information, and the role of costly information in explaining unemployment.*

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* A good selection of this literature can be found in Diamond and Rothschild (1978).

As with the consumption function, the orthodox theory of Stigler has been extended and elaborated by economists until it has become an integral part of economic theory, while the heterodox theory of Simon has not. Fortunately, neglect by economists does not mean total neglect. Simon's ideas have been widely used outside of economics, where they do not rupture the boundaries of an academic discipline, and they have recently received some attention from economists as well. Attempts have been made to formalize the concept of satisfying behavior and to draw implications from these formulations about economic behavior.*

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* Nelson and Winter (1973, 1975); Radner (1975); Radner and Rothschild (1975); Williamson (1975).

Both of these examples show that certain problems within economics have stimulated work on the edges of the discipline. They also show that the discipline itself is very conservative, preferring an orthodox solution--that is, one that maintains traditional assumptions--to a more eclectic one.

Two terms in common used within economics today reveal this conservatism from a different vantage point, while showing also that the effort to combine elements from distinct academic disciplines still continues. The terms are "internal labor markets" and "implicit contracts."* Both are noteworthy for

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* The former was introduced by Doeringer and Piore (1971); the latter is common in the recent macroeconomic literature. It is worth noting that the term "implicit contracts" in economics does not refer to the unwritten but legally enforceable implicit contracts present in many commercial transactions.

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their paradoxical nature. Internal labor markets are not markets, and implicit contracts are not contracts. They are both terms for non-instrumental behavior, but the terms disguise the behavior as instrumental behavior to locate it within economics.

Doeringer and Piore's well-known book on internal labor markets showed that labor was not allocated within firms by means of a market. They described and analyzed the mix of customary and coercive behavior used within firms in order to describe it and to distinguish it from the way labor is allocated between firms. To distinguish it from what is normally called a labor market, they had to coin a new term. But instead of selecting a totally different phrase, they chose to modify the usual term, labor market, instead.

This is a curious phenomenon. It is as if green were to be called "proto-red" or "near blue." It identifies the behavior within firms in terms of the behavior between firms. It both affirms the difference by drawing explicit attention to it and denies it by approaching the internal behavior as a type of external behavior. It is as if there are several types of labor markets, internal and external, but all forms of labor organizations are markets. Since Doeringer and Piore wanted explicitly to introduce into the economics literature a consideration of administrative and customary behavior, they did not want to be rejected by the discipline as "foreign." The non-instrumental behavior consequently was smuggled in in disguise.

The same analysis holds for "implicit contracts." The dominant characteristic of implicit contracts is that they are not contracts at all. A contract is the result of conscious agreement by two parties which is communicated in some explicit way. An implicit contract lacks both the element of conscious agreement and explicit communication. Implicit contracts are customs, not contracts at all. Yet instead of calling them customs, economists almost universally refer to them as implicit contracts.

As with internal labor markets, the attempt appears to be to retain the discussion within economics. Contracts are willful actions by consenting individuals or groups. They fit easily within the instrumental model of behavior. But custom, for obvious reasons, does not. Labelling customs as implicit contracts allows the inference that people have "implicitly"

agreed to them. Their implicit agreement can be analyzed as if it were explicit, and the existence of custom can be more or less forgotten.

This can be seen clearly in an important article by Okun. He discussed inflation in two different kinds of markets, which he called auction and customer markets. An auction market is the traditional economic market. A customer market, by contrast, is one with "an established customer-supplier relationship" where the customer's and supplier's "interdependence puts a premium on maintaining the relationship." It is not a market based on exchange so much as a customary pattern of action based on reciprocal relationship. In Okun's words:

> The supplier obviously cannot promise the customer that he will offer the same deal forevermore. In particular, he may have to raise his price if his costs rise. But he can promise to treat the customer "fairly" on all the dimensions of their transactions, thus offering the customer an implicit contract. It remains implicit because of the high cost of spelling out and negotiating the terms of an explicit, formal contract.*

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* Okun (1975), p. 462.

The key words in this passage are "promise" and "offer." They are key because they are metaphors rather than descriptions. Okun does not have a picture of a supplier making a verbal or written promise to each customer to treat him or her "fairly." Nor does he have a vision of this supplier physically offering an implicit contract--"Here is an implicit contract!"--to the customer. The language is the language of exchange, but the process being described is a reciprocal relationship.

Once we recognize that reciprocity rather than exchange is at issue, that there is no precise agreement on and calculation of "fairness" in the relationship, we can see that the preservation of the relationship itself becomes an important part of the interaction. Okun says that an explicit contract is not used because of its high cost. This implies that both parties want a formal contract and would have one if it were cheaper. But a formal contract would destroy the reciprocal relationship by eliminating the expectation of reciprocity. It would substitute market transactions for the expectation of "fair" dealing. It might not be desired--even if available--by either party. Okun's reliance on the economic metaphors has led him into the implicit assumption that people strive always to exhibit instrumental behavior and are frustrated only by high costs. This will be true in some cases, but there clearly are others where the parties involved would rather use customary behavior and reciprocal relationships than instrumental behavior and explicit bargains.*

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* Okun says later in his article: "Although I cannot prove that the prevalence of customer markets yields a net benefit, subjectively I think the system is worth saving." (Okun (1975), p. 384) The desired proof would be within the discipline of economics where only instrumental behavior is recognized. It consequently could not acknowledge the social desires of the people involved. So Okun is forced to fall back on his "subjective," non-professional judgment in an effort to acknowledg these desires.

The characteristics of Okun's article pervade the economics literature on implicit contracts. There is an underlying assumption that instrumental behavior is preferred by all parties. In any long-term arrangements, this assumption leads to the inference that explicit contracts are desired. Only the cost of drawing up such contracts prevents their universal use. And whenever they cannot be used, implicit contracts--containing everything except actual agreement--are used instead. The literature describes customary behavior without ever admitting its existence.*

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*Okun's partitioning of markets parallels McNeil's partitioning of contracts, as described in chapter 3. McNeil talked of "transactional" contracts when an isolated economic transaction was involved and of "relational" contracts when ongoing relations were involved. While the distinction is the same, McNeil was talking of actual contracts, while Okun was not. McNeil (1974); chapter 3, above.

The works just discussed focus on the mode of behavior being used, but they also discuss the institutional structure within which the actions take place. The work by Doeringer and Piore, in particular, explores the relationship between behavior and institutional arrangements.

To the extent that there is a theory of institutional change within economics, however, it conflicts with the model presented here. This theory starts from the work of Buchanan and Tullock,

and it regards all institutional change as the result of decisions made in the instrumental mode. In its dominant example, a governmental hierarchy is imposed over part of the economy to reach a well-defined goal. The model just presented allows that behavior as one case, but argues that many institutional changes take place in response to a change in the mode of behavior.*

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* Buchanan and Tullock (1962). For applications of this style of reasoning to problems of economic policy, see Stigler (1971), Peltzman (1976). For an application to U.S. history, see Davis and North (1971).

Since economists concentrate on the description of instrumental behavior, it is natural that work on the edges of economics treats the boundaries between instrumental and other behavior, and between markets and other institutions. To find work on the boundaries between customary and command behavior, and between communal and hierarchical structures, we need to turn to sociology. A book by Peter Blau provides an elegant introduction to this problem. Without exploring in detail the reasons for a change in behavior, Blau analyzes the process by which deviations from normal customary behavior can lead to an institutional change from a community to a hierarchy.*

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* Blau (1964). See Homans (1958) and Gouldner (1960) for the background.

Blau's work can be considered as an answer to the following question: what happens when a social exchange is not completed? This is a question outside the scope of economics; the basic assumption of economic models is that exchanges are completed. One might even think of economics as the study of completed transactions. Aside from the subject matter--social as opposed to economic exchange--Blau's basic conceptualization of the problem is drawn from outside of economics. The frequent references in Blau's book and the discussion here to economic concepts should not disguise this important fact.

It was noted that the nature of communication in the three modes of behavior differed. The implications of uncompleted interactions therefore can be considered for each mode. The basic form of interaction for instrumental behavior is an explicit trade, purchase, sale or barter. If these trades are sanctioned by law, then failure of one party to pay or to deliver his side of the bargain will result in some kind of legal (coercive) action to compel completion of the trade or make restitution for deviations from the anticipated exchange. If the trades are not covered by law or are too small to invoke the costly procedures of the law, failure to complete a transaction will result in an unwillingness on the part of the injured party to enter into future bargains--a loss of business. Interaction in coercive behavior consists of commands, and refusal to obey commands leads typically to punishment--financial, physical, or other--of the recalcitrant. As in instrumental behavior, inability to impose these sanctions erodes the coercive relationship.

The simplest form of personal interaction in the customary mode is reciprocity. People help one another or provide services for one another and expect to receive help of services in return. There is no formal accounting, and no one--outside of a few status-seeking hostesses--keeps careful track of what is owed. But there is a clear sense of obligation when a favor has been received and a clear expectation that a hand extended will be reciprocated in some way.

Within this framework, Blau lists five options open to a person desiring some kind of service or help from another. He can supply services in return, that is, reciprocate. He can seek an alternate source for the desired service. He can, if he has the means, coerce the supplier. He can do without. Or, if he has no alternative, he can indicate that he will comply with the supplier's wishes in some other unspecified matter, that is, he can give the person supplying him authority over him. In Blau's words, "The absence of the first four alternatives defines the conditions of power in general."*

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*Blau (1964), pp. 118-119.

Blau does not dwell on the reasons why a person might find himself in the position of wanting something for which he cannot pay but which he cannot do without. His prose seems to imply that the person has fallen into this position by mistake or inadvertance. If so, Blau is guilty of the same kind of solipsism as economists who assume that people always want to act in the behavior mode

that they study--and adopt others only under stress. Economists assume that all people want to act instrumentally in market settings; Blau appears to be assuming that all people want to act customarily in community settings. The contrast between these two statements shows immediately that neither can be true. It is possible, therefore, that Blau's apparently hapless individual may instead be someone who wants to change from customary to command behavior in response, say, to an increase in the possibility of loss from unanticipated changes in the environment.

To recapitulate the argument so far: reciprocal interactions create or continue social bonds between peers. Interactions that are not reciprocated (for whatever reason) create status differentials. The person doing something for another without immediate return has a claim on the other. It is this claim that comprises his power. It follows that a major reason for reciprocating favors of all sorts is the desire to avoid becoming subordinate to another person.

The power to command compliance with your wishes is like credit. It is accumulated by doing things for others. And it is diminished by use, although people with enough power can have their wishes carried out without losing power. Carrying the analogy with capital further, it is as if they are spending only the "interest" from their stock of power.*

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* Blau (1964), pp. 22, 133-134.

The analogy with credit cannot be carried too far, however. In contrast to economic exchanges, social exchanges entail unspecified obligations. There is no way to bargain over the "price" of an activity, that is, over the size of the reciprocal obligation. Nevertheless, it is present, and there are a variety of sanctions that can be used against people who neither reciprocate nor acknowledge the obligation for the future they have incurred: termination of the possibility of future social interactions, termination of trust, loss of reputation, guilt (if the sense of obligation has been internalized). And it is possible to detect gross changes in the rate of exchange of different services, which are caused by changes in the supply and demand for the services in question.

The power gained by asymmetric interactions gets institutionalized when the simple exchange of benefit for obligation becomes transformed into two exchanges. The transformation is initiated when a person or organization delays gratification, that is, allows unreciprocated services to accumulate. Individuals benefitting from these services exchange compliance with the directives of the powerful person or institution for the approval of their peer group. The group exchanges group compliance for the benefit to the common welfare. And the authority is institutionalized when the second of these exchanges becomes part of the group's culture. Power then derives from the institutional forms of the power, that is, from a hierarchical institution, not from

current exchanges. And as long as these institutions retain enough compliance from the majority of people to be viable, they can impose their power on dissident minorities.* The shift from

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* Blau (1964), pp. 209-215.

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community to hierarchy is complete. Unreciprocated customary actions create the setting for command behavior. And as the command behavior becomes institutionalized, the link to customary behavior fades into the background.

Within communities, a similar process extends the scope for social interactions beyond the immediate acquaintances of an individual. The existence of social norms provides a substitute for direct reciprocity between individuals. Instead of performing an action in the expectation of reciprocity from the person affected, people act to get social approval. And the group as a whole cooperates in the maintenance of the social structure because of the mutual benefits that it confers. The direct interaction between individuals then is mediated through the group. People give charity without expectation of direct return. They vote in full knowledge that a single vote will not sway the election. They act in conformity with social norms, both imposed by the group they belong to and internalized as a result of past associations. Doctors, for example, therefore refrain in general from excessive social contact with patients, lest the reciprocal needs of these individual contacts

overwhelm the social obligations of their profession and lead them to deviate from their professional norms.*

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* Blau (1964), pp. 235, 253-261.

This brief review of a varied literature shows that components of the model just presented have been discussed from different points of view by authors starting with different questions and often from different disciplinary backgrounds. But none of these authors has tried to put together these components into a single model, presumably because they were working on questions that did not suggest the need for a comprehensive model.*

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* A recent book on societal decision-making lists the three modes of behavior and one other as possible means of allocating scarce resources. The authors discuss the market, accountable political processes, and customary approaches as ideal types of reource allocation. They clearly refer to the three modes of behavior described in the model here, but they do not embody them in a formal model. They also add an additional decision mode: lotter This addition represents an additional way for societies to allocate resources; it does not describe a distinct mode of individual behavior. See Calabresi and Bobbitt (1978), pp. 31-5

The model just presented therefore should be thought of as synthetic, as drawing together strands from different traditions, rather than as hypothesizing the existence of a new form of action. It provides a tool for thinking about which form of behavior will be used in various settings and about the relative merits and stability of different institutional structures when faced with different modes of behavior.

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